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10/565,815	01/24/2006	Gerrit Frederik Magdalena De Poortere	NL 030906	7565

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
MONIKANG, GEORGE C	
ART UNIT	PAPER NUMBER
2615	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/565,815	DE POORTERE, GERRIT FREDERIK MAGDALENA	
	Examiner	Art Unit	
	GEORGE C. MONIKANG	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *4* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/565,815.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/15/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/25/2008 have been fully considered but they are not persuasive.

2. With regards to applicants arguments that Zwicker et al fails to disclose a gains dispatcher unit for allocating a maximum allowable gain of the volume amplification unit on the basis of available headroom fro amplification, however examiner argues that Zwicker et al discloses a maximum potential gain in correlation with the maximum voltage (*Zwicker et al, col. 3, lines 55-66*).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims Claims1-2 & 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Zwicker et al, US Patent 4,868,881. (Zwicker et al is cited in IDS filed 8/15/2007).

3. Re Claim 1, Zwicker et al discloses an audio conditioning apparatus for conditioning an audio signal to be output (*abstract*), said audio conditioning apparatus comprising: an input for receiving the audio signal (*fig. 1: 1*); a noise characterizing unit determining a noise level of environmental noise (*abstract*); a volume amplification unit

to said input for amplifying a volume of the audio signal , by a volume gain in dependence on the noise level characterized a further noise characterizing unit determining a further noise level of the environmental noise in a bass frequency noise band or a treble frequency noise band (*fig. 1: 5; abstract; col. 4, lines 10-20*) and a further amplification unit amplify coupled to said volume amplification, unit for amplifying by a further gain the amplitude of frequency components in a bass frequency audio band a treble frequency audio band of the audio signaling dependence of the further noise level the base or treble frequency band (*fig. 1: 3; abstract; col. 4, lines 10-20*), respectively, wherein said audio conditioning apparatus further comprises: a gain dispatcher unit coupled to said input for allocating a maximum allowable gain of the volume amplification unit and the further amplification unit on the basis of available headroom for amplification (*col. 3, lines 55-66*).

Re Claim 2, Zwicker et al discloses an audio conditioning apparatus as claimed in claim 1, wherein an upper limit of the bass frequency audio band substantially lies in the range of 60 to 150 Hz, and wherein a lower limit of the treble frequency audio band substantially lies in the range of 8 kHz to 12 kHz (*col. 4, lines 10-20*).

Re Claim 8, Zwicker et al discloses an audio reproduction apparatus, comprising: a loudspeaker for reproduction of the audio signal (*fig. 1: 6 & 7*); an access to an input audio signal on which the audio signal is based (*abstract*); and the audio conditioning apparatus (*abstract*) as claimed in claim 1.

Claims 9 & 10 have been analyzed and rejected according to claim 1.

4.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4,868,881 as applied to claim 1 above, and further in view of Kuusama, US Patent 5,509,081. (Kuusama is cited in IDS filed 8/15/2007)

Re Claim 3, Zwicker et al discloses an audio conditioning apparatus as claimed in claim 1, but fails to disclose wherein said audio conditioning apparatus further comprises: a gain consistency unit is coupled to said noise characterizing unit and said further noise characterization unit for yielding a gain consistently varying in time, according to a predetermined mathematical criterion. However, Kuusama does (*col. 3, lines 17-38*).

Taking the combined teachings of Zwicker et al and Kuusama as a whole, one skilled in the art would have found it obvious to modify the audio conditioning apparatus of Zwicker et al with wherein said audio conditioning apparatus further comprises: a gain consistency unit is coupled to said noise characterizing unit and said further noise characterization unit for yielding a gain consistently varying in time, according to a predetermined mathematical criterion as taught in Kuusama (*col. 3, lines 17-38*) to provide different time constants for the gain.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4,868,881 as applied to claim 1 above, and further in view of Bohn, US Patent 5,046,105. (Bohn is cited in IDS filed 8/15/2007)

9. Re Claim 5, Zwicker et al discloses an audio conditioning apparatus as claimed in claim 1, but fails to disclose wherein the further amplification unit comprises a shelving filter. However, Bohn does (*col. 8, lines 56-60*).

10. Taking the combined teachings of Zwicker et al and Bohn as a whole, one skilled in the art would have found it obvious to modify the audio conditioning apparatus of Zwicker et al with wherein the further amplification unit comprises a shelving filter as taught in Bohn (*col. 8, lines 56-60*) to cause the amplitude versus frequency response characteristics of the audio signal to exhibit the shape of a shelf.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4,868,881 as applied to claim 1 above, and further in view of Takahashi et al, US Patent 6,891,954 B2.

Re Claim 6, Zwicker et al discloses an audio conditioning apparatus as claimed in claim 1, wherein said audio conditioning apparatus is connectable to a loudspeaker usable for reproduction of the audio signal (*fig. 1: 6 & 7*), an environmental noise being measurable by a microphone (*abstract*); but fails to disclose wherein said audio conditioning apparatus further comprises an active noise canceling unit for substantially canceling environmental noise in a cancellation band of frequencies. However, Takahashi et al does (*Takahashi et al, abstract*).

Taking the combined teachings of Zwicker et al and Takahashi et al as a whole, one skilled in the art would have found it obvious to modify the audio conditioning apparatus as claimed in claim 1, wherein said audio conditioning apparatus is connectable to a loudspeaker usable for reproduction of the audio signal (*fig. 1: 6 & 7*), an environmental noise being measurable by a microphone (*abstract*) of Zwicker et al with wherein said audio conditioning apparatus further comprises an active noise canceling unit for substantially canceling environmental noise in a cancellation band of frequencies as taught in Takahashi et al (*Takahashi et al, abstract*) to cancel the surrounding noise.

Zwicker et al and Takahashi et al fail to disclose the loudspeaker being a headphone. Official notice is taken that both the concepts and advantages of providing

headphone loudspeakers are well known in the art. It would have been obvious to use headphones since they are commonly used as portable speakers.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4,868,881 and Takahashi et al, US Patent 6,891,954 B2 as applied to claim 6 above, and further in view of Philipsson et al, US Patent 7,006,624 B1.

Re Claim 7, Zwicker et al and Takahashi et al disclose an audio conditioning apparatus as claimed in claim 6, but fail to disclose wherein said audio conditioning apparatus further comprises a distance measuring device for measuring a distance between the microphone and the loudspeaker. However, Philipsson et al does (*col. 4, lines 32-41*).

Taking the combined teachings of Zwicker et al, Takahashi et al and Philipsson et al as a whole, one skilled in the art would have found it obvious to modify the audio conditioning apparatus of Zwicker et al and Takahashi et al with wherein said audio conditioning apparatus further comprises a distance measuring device for measuring a distance between the microphone and the loudspeaker as taught in Philipsson et al (*col. 4, lines 32-41*) to be able to control the gain.

Zwicker et al, Takahashi et al and Philipsson et al fail to disclose the loudspeaker being a headphone. Official notice is taken that both the concepts and advantages of providing headphone loudspeakers are well known in the art. It would have been obvious to use headphones since they are commonly used as portable speakers

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/ 5/30/2008
Examiner, Art Unit 2615

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615